

**CALIFORNIA DEPARTMENT OF TRANSPORTATION
DUTY STATEMENT**

CLASSIFICATION TITLE Electrical Engineering Technician II	DISTRICT/DIVISION/OFFICE North Region Construction	
WORKING TITLE Technical Electrical Inspector	POSITION NUMBER 928-502-3627-	EFFECTIVE

As a valued member of the Caltrans team, you make it possible for the Department to improve the mobility across California by being innovative and flexible; working cooperatively with team members and others; and treating others fairly, honestly and with respect. Your efforts are important to each member of the team, as well as those we serve.

GENERAL STATEMENT:

This is the full journey level position of the Electrical Engineering Technician Series. Under the supervision of a Construction Engineer, a Senior Transportation Engineer, and with lead direction from a Transportation Engineer (Electrical), will perform various technical electrical transportation engineering tasks of average difficulty. Traveling is required, must possess a valid driver's license.

Percentage
Essential (E)/Marginal (M)¹

Job Description

Specific duties include, but are not limited to:

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| 60% (E) | Assist with performing construction inspections as needed, ensuring compliance with plans and specifications. Advises Resident Engineers of contract compliance/noncompliance of various phases of electrical construction activity on their projects; assists Resident Engineers in preparing contract change orders, contract estimates, and other documents and reports involved in the construction of electrical projects. |
| 20% (E) | The incumbent advises contractor's personnel on various phases of construction activity; assists in drafting and preparing specifications, CCOs, contract estimates, and other documents and reports involved in the construction of electrical projects which include roadway lighting, traffic control systems, changeable message sign systems, and other roadway electrical facilities; prepares cost estimates and agreements. |
| 15% (E) | The incumbent performs constructability and other reviews of contract plans and specifications involving electrical work. |
| 5% (M) | Various duties related to Electrical Inspection as needed including, maintaining the accuracy of projects reports, and reporting on the status of work and the completed results. |

SUPERVISION EXERCISED OVER OTHERS

The position does not supervise.

Incumbent is supervised by and receives direction from the Construction Engineer, a Senior Transportation Engineer.

KNOWLEDGE, ABILITIES AND ANALYTICAL REQUIREMENTS

The incumbent must have knowledge of the design of electrical, electronic and associated systems. Knowledge of electrical and electronic materials, components, installation and construction methods; personal computers; highway lighting and traffic signal systems; electrical systems for motors and their controls; communication systems; electrical control schematics and wiring diagrams; electrical and electronic theory and practices; engineering mathematics; construction procedures and practices; field inspection and the inspector's role on the departments construction projects; Standard Specifications, Standard Plans and the contract administration process as provided for in the Construction manual; the department's safety and health policies and procedures; basic safety practices contained in the California Code of Regulations, Title 8 Industrial Relations, Safety Orders, and the General Industry Safety Orders regarding personal protective equipment.

The incumbent must be able to follow directions; review plans, quantities, cost estimates and specifications of transportation electrical projects. Must be able to interpret all drawings, plans and specifications of any kind encountered in the contract documents; do complex electrical layouts for field construction work; do field inspection of transportation electrical and electronic systems; correlate plans, designs, drawings and data with physical conditions; prepare and check as-built plans; maintain accurate and complete project records; use state-of-the-art technology, i.e., CADD, personal computers; report the status of work and the completed results. Analyze work situations, meet deadlines, and work with others. Must exercise good judgment and personal skills in dealing with field staff, resident engineers, and contractors.

The incumbent will be required to understand basic design engineering principals; make accurate engineering calculations; ability to research and compile data and prepare calculations for a variety of routine transportation improvement projects.

Incumbent must possess a valid driver's license.

CONSEQUENCE OF ERROR/RESPONSIBILITY FOR DECISIONS

Unsafe electrical installations, lack of on-site technical electrical knowledge on complex electrical projects, non-compliance with plans and specifications, projects being advertised with incomplete and /or unbuildable plans and specifications, resulting in contract change orders, and contractor's claims for added compensation.

PUBLIC AND INTERNAL CONTACTS

The incumbent must be able to establish and maintain friendly and cooperative relations with those contacted in the course of the work. Some contact with Contractors, the Region Construction Office, Resident Engineer's offices and the general public will occur.

PHYSICAL, MENTAL AND EMOTIONAL REQUIREMENTS

When on construction project sites, the incumbent may be required to stand for long periods of time, walk on slopes or uneven terrain. When at their base office setting, the incumbent may be required to sit for long periods of time using a keyboard and video display terminal. In the course of the employee's work, he or she must maintain a cooperative working relationship within the working environment, with peers, subordinates, and contractors and their employees. The incumbent must have a thorough working knowledge of construction principles and techniques to include personnel management and supervision.

WORK ENVIRONMENT

The incumbent will be subject to noise, odors, and dust; extreme weather conditions when on construction project sites; when working at the base office site, will be subject to a climate-controlled environment; artificial lighting, etc. Must work with and about a variety of materials, construction and testing equipment.

I have read and understand the duties listed above. If you believe you may require reasonable accommodation, please discuss this with the hiring supervisor.

Employee (please print)

Employee Signature Date

I have discussed with and provided a copy of this duty statement to the employee named above.

Supervisor (please print)

Supervisor Signature Date

- ESSENTIAL FUNCTIONS are the core duties of the position that cannot be reassigned.
- MARGINAL FUNCTIONS are minor tasks of the position that can be assigned to others.